

## 2024年发表的重要研究论文

序号	通讯 (第一) 作者	论文名称	期刊名称	影响因子
1	田 丰 李继刚	Maize smart-canopy architecture enhances yield at high densities	<i>Nature</i>	54.4
2	宋 文	Substrate-induced condensation activates plant TIR domain proteins	<i>Nature</i>	54.4
3	徐明良	The ZmWAKL-ZmWIK-ZmBLK1-ZmRBOH4 module provides quantitative resistance to gray leaf spot in maize	<i>Nat Genet</i>	36.6
4	徐明良	The ZmCPK39-ZmDi19-ZmPR10 immune module regulates quantitative resistance to multiple foliar diseases in maize	<i>Nat Genet</i>	36.6
5	郑绍建	The LRR receptor-like kinase ALR1 is a plant aluminum ion sensor	<i>Cell Res</i>	36.5
6	任东涛 陈艳梅	Capturing the phosphorylation-linked protein-complex landscape in plants	<i>Trends Plant Sci</i>	22.5
7	毛传澡	New mechanistic insights into phosphate-starvation-regulated plant architecture change and nutrient uptake	<i>Mol Plant</i>	21.4
8	杨淑华 施怡婷	Genetic variation in a heat shock transcription factor modulates cold tolerance in maize	<i>Mol Plant</i>	21.4
9	张永亮	Proximate profiling reveals a conserved SGT1-NSL1 signaling module that activates NLR-mediated immunity	<i>Mol Plant</i>	21.4
10	徐明良	A maize WAK-SnRK1 $\alpha$ 2-WRKY module regulates nutrient availability to defend against head smut disease	<i>Mol Plant</i>	21.4
11	李继刚	Liquid-liquid phase separation of TZP promotes PPK-mediated phosphorylation of the phytochrome A photoreceptor	<i>Nat Plants</i>	17.1
12	梁鹏博	Zinc sensing in nodules regulates symbiotic nitrogen fixation	<i>Nat Plants</i>	17.1
13	梁鹏博	Chitinase-assisted winner: nematodes antagonize symbiotic microbes	<i>Trends Microbiol</i>	17
14	郑绍建	A clade of receptor-like cytoplasmic kinases and 14-3-3 proteins coordinate inositol hexaphosphate accumulation	<i>Nat Commun</i>	16.1
15	徐明良	ZmGDI $\alpha$ -hel counters the RBSDV-induced reduction of active gibberellins to alleviate maize rough dwarf virus disease	<i>Nat Commun</i>	16.1

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16	傅 纓	Endomembrane trafficking driven by microtubule growth regulates stomatal movement in <i>Arabidopsis</i>	<i>Nat Commun</i>	16.1
17	刘建祥	Diurnal regulation of alternative splicing associated with thermotolerance in rice by two glycine-rich RNA-binding proteins	<i>Sci Bull</i>	15.9
18	刘建祥	3D chromatin reorganization during stress responses in plants	<i>Sci Bull</i>	15.9
19	杨淑华 丁杨林 施怡婷	Regulatory networks underlying plant responses and adaptation to cold stress	<i>Annu Rev Genet</i>	14.8
20	杨小红	Linkage and association mapping in multi-parental populations reveal the genetic basis of carotenoid variation in maize kernels	<i>Plant Biotechnol J</i>	11.6
21	陈益芳	ZmPHR1 contributes to drought resistance by modulating phosphate homeostasis in maize	<i>Plant Biotechnol J</i>	11.6
22	施怡婷	Genetic variation in the aquaporin TONOPLAST INTRINSIC PROTEIN 4;3 modulates maize cold tolerance	<i>Plant Biotechnol J</i>	11.6
23	寿惠霞	SoyOD: An Integrated Soybean Multi-omics Database for Mining Genes and Biological Research	<i>Genom Proteom Bioinf</i>	11.5
24	杨淑华	Differential phosphorylation of CNGC20 antagonistically modulates calcium-mediated freezing tolerance in <i>Arabidopsis</i>	<i>Plant Cell</i>	11.1
25	王献兵	The plant rhabdovirus viroporin P9 facilitates insect-mediated virus transmission in barley	<i>Plant Cell</i>	11.1
26	傅 纓	The adaptor protein ECAP, the co-repressor LEUNIG, and the transcription factor BEH3 interact and regulate microsporocyte generation in <i>Arabidopsis</i>	<i>Plant Cell</i>	11.1
27	王良省	EXECUTER1 and singlet oxygen signaling: A reassessment of nuclear activity	<i>Plant Cell</i>	11.1
28	李召虎 田晓莉	The EIN3/EIL-ERF9-HAK5 transcriptional cascade positively regulates high-affinity K <sup>+</sup> uptake in <i>Gossypium hirsutum</i>	<i>New Phytol</i>	10.2
29	陈丽梅	ZmCRK1 negatively regulates maize's response to drought stress by phosphorylating plasma membrane H <sup>+</sup> -ATPase ZmMHA2	<i>New Phytol</i>	10.2

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30	张永亮	Orchestrating ROS regulation: coordinated post-translational modification switches in NADPH oxidases	<i>New Phytol</i>	10.2
31	汪 洋	CPK28-mediated phosphorylation enhances nitrate transport activity of NRT2.1 during nitrogen deprivation	<i>New Phytol</i>	10.2
32	王 毅	Alternating inverse modulation of xylem K <sup>+</sup> /NO <sup>3-</sup> loading by HY5 and PIF facilitates diurnal regulation of root-to-shoot water and nutrient transport	<i>New Phytol</i>	10.2
33	毛传澡	The t-SNARE protein OsSYP132 is required for vesicle fusion and root morphogenesis in rice	<i>New Phytol</i>	10.2
34	傅 纓	LKS4-mediated SYP121 phosphorylation participates in light-induced stomatal opening in <i>Arabidopsis</i>	<i>Curr Biol</i>	9.8
35	杨光辉	Structural changes in the conversion of an <i>Arabidopsis</i> outward-rectifying K <sup>+</sup> channel into an inward-rectifying channel	<i>Plant Commun</i>	9.4
36	刘建祥	CCaP1/CCaP2/CCaP3 interact with plasma membrane H <sup>+</sup> -ATPases and promote thermo-responsive growth by regulating cell wall modification in <i>Arabidopsis</i>	<i>Plant Commun</i>	9.4
37	于静娟	The m <sup>6</sup> A reader SiYTH1 enhances drought tolerance by affecting the messenger RNA stability of genes related to stomatal closure and reactive oxygen species scavenging in <i>Setaria italica</i>	<i>J Integr Plant Biol</i>	9.3
38	刘建祥	NFXL1 functions as a transcriptional activator required for thermotolerance at reproductive stage in <i>Arabidopsis</i>	<i>J Integr Plant Biol</i>	9.3
39	杨光辉	Structural insights into the <i>Oryza sativa</i> cation transporters HKTs in salt tolerance	<i>J Integr Plant Biol</i>	9.3
40	郭 岩 杨永青 蒋才富	Designing salt stress-resilient crops: Current progress and future challenges	<i>J Integr Plant Biol</i>	9.3
41	陈其军	PE6c greatly enhances prime editing in transgenic rice plants	<i>J Integr Plant Biol</i>	9.3
42	巩志忠	Ca <sup>2+</sup> -independent ZmCPK2 is inhibited by Ca <sup>2+</sup> -dependent ZmCPK17 during drought response in maize	<i>J Integr Plant Biol</i>	9.3

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43	王 瑜	Phosphorylation of ZmAL14 by ZmSnRK2.2 regulates drought resistance through derepressing ZmROP8 expression	<i>J Integr Plant Biol</i>	9.3
44	郑绍建	STOP1 regulates CCX1-mediated Ca <sup>2+</sup> homeostasis for plant adaptation to Ca <sup>2+</sup> deprivation	<i>J Integr Plant Biol</i>	9.3
45	李继刚	Regulation of cryptochrome-mediated blue light signaling by the ABI4-PIF4 module	<i>J Integr Plant Biol</i>	9.3
46	傅 缨 李长江	Jasmonate signaling pathway confers salt tolerance through a NUCLEAR FACTOR-Y trimeric transcription factor complex in <i>Arabidopsis</i>	<i>Cell Rep</i>	8.5
47	刘建祥	XBAT31 regulates reproductive thermotolerance through controlling the accumulation of HSFB2a/B2b under heat stress conditions	<i>Cell Rep</i>	8.5
48	周文焜	Tipping the balance: The dynamics of stem cell maintenance and stress responses in plant meristems	<i>Curr Opin Plant Biol</i>	8.3
49	徐 娟	Chemical-sensitized MITOGEN-ACTIVATED PROTEIN KINASE 4 provides insights into its functions in plant growth and immunity	<i>Plant Physiol</i>	7.6
50	毛传澡	Developmental responses of roots to limited phosphate availability: Research progress and application in cereals	<i>Plant Physiol</i>	7.6
51	李继刚	Molecular characterization and functional analyses of maize phytochrome A photoreceptors	<i>Plant Physiol</i>	7.6
52	段留生 周于毅	Jasmonate mimic modulates cell elongation by regulating antagonistic bHLH transcription factors via brassinosteroid signaling	<i>Plant Physiol</i>	7.6
53	刘建祥	Regulation of metal homeostasis by two F-group bZIP transcription factors bZIP48 and bZIP50 in rice	<i>Plant Cell Environ</i>	7.6
54	李继刚 马 亮	Molecular mechanisms underlying coordinated responses of plants to shade and environmental stresses	<i>Plant J</i>	7.1
55	寿惠霞	The acyl-acyl carrier protein thioesterases GmFATA1 and GmFATA2 are essential for fatty acid accumulation and growth in soybean	<i>Plant J</i>	7.1

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56	周于毅 段留生	ZmSCE1a positively regulates drought tolerance by enhancing the stability of ZmGCN5	<i>Plant J</i>	7.1
57	田晓莉	Effect of different irrigation and fertilizer coupling on the liquiritin contents of the licorice in Xinjiang arid area	<i>Ecol Indic</i>	7
58	李景睿	The SALT OVERLY SENSITIVE 2-CONSTITUTIVE TRIPLE RESPONSE1 module coordinates plant growth and salt tolerance in <i>Arabidopsis</i>	<i>J Exp Bot</i>	6.8
59	段留生 周于毅	Triacontanol delivery by nano star shaped polymer promoted growth in maize	<i>Plant Physiol Bioch</i>	6.2
60	段留生 周于毅	Unveiling the regulatory role of miRNAs in internode elongation: integrated analysis of microRNA and mRNA expression profiles across diverse dwarfing treatments in maize	<i>J Agric Food Chem</i>	6
61	段留生	Design, synthesis, and bioactivities of N-heterocyclic ureas as strigolactone response antagonists against parasitic-weed seed germination	<i>J Agric Food Chem</i>	6
62	郭 岩	Insights into plant salt stress signaling and tolerance	<i>J Genet Genomics</i>	5.8
63	秦 峰	An LRR-RLK protein modulates drought- and salt-stress responses in maize	<i>J Genet Genomics</i>	5.8
64	施怡婷	Genetic and lipidomic analyses reveal the key role of lipid metabolism for cold tolerance in maize	<i>J Genet Genomics</i>	5.8
65	陈益芳	Phosphorus acquisition, translocation, and redistribution in maize	<i>J Genet Genomics</i>	5.8
66	段留生	Design, synthesis and biological evaluation of novel phenyl-substituted naphthoic acid ethyl ester derivatives as strigolactone receptor inhibitor	<i>Int J Mol Sci</i>	5.6
67	张明才 李召虎	Ethylene accelerates maize leaf senescence in response to nitrogen deficiency by regulating chlorophyll metabolism and autophagy	<i>Crop J</i>	5.6
68	徐明良	Multi-omics analysis reveals the pivotal role of phytohormone homeostasis in regulating maize grain water content	<i>Crop J</i>	5.6

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69	寿惠霞	Role of OsbHLH156-OsIRO2 transcription factor complex in regulating manganese, copper and zinc transporters in rice	<i>J Exp Bot</i>	5.6
70	寿惠霞	PHO1: linking phosphate nutrition translocation and floral signalling in plants	<i>J Exp Bot</i>	5.6
71	李大伟	Zn <sup>2+</sup> -dependent association of cysteine-rich protein with virion orchestrates morphogenesis of rod-shaped viruses	<i>PLoS Pathog</i>	5.5
72	苏 震	Nuclear lamina component KAKU4 regulates chromatin states and transcriptional regulation in the <i>Arabidopsis</i> genome	<i>BMC Biol</i>	5.4
73	苏 震	KAKU4 regulates leaf senescence through modulation of H3K27me3 deposition in the <i>Arabidopsis</i> genome	<i>BMC Plant Biol</i>	5.2
74	毛传澡	Protein phosphatase 5 mediates plant growth and phosphate homeostasis in rice	<i>Environ Exp Bot</i>	5.2
75	任东涛	Identification of the fructose 1,6-bisphosphate aldolase (FBA) family genes in maize and analysis of the phosphorylation regulation of ZmFBA8	<i>Plant Sci</i>	4.9
76	段留生	Deciphering physiological and transcriptional mechanisms of maize seed germination	<i>Plant Mol Biol</i>	4.6
77	徐明良	The maize ZmCPK39-ZmKnox2 module regulates plant height	<i>aBIOTECH</i>	4.5
78	陈其军	Enhanced editing efficiency in <i>Arabidopsis</i> with a LbCas12a variant harboring D156R and E795L mutations	<i>aBIOTECH</i>	4.5

累计 SCI 影响因子 944.5，平均影响因子 12.11/每篇。